

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Power Engineering and Mfg Ltd

Iowa Center for Industrial Research and Service

#### Power Engineering and Manufacturing, Ltd. Increases Productivity

##### Client Profile:

Power Engineering and Manufacturing, Ltd. specializes in the custom design and manufacturing of heavy duty gear boxes. The gear boxes are operating throughout the United States and in more than 48 countries around the world. Services include engineering capabilities that can redesign and build damaged, broken, or obsolete case, gear, or component parts. Power Engineering employs 58 people at its facility in Waterloo, Iowa.

##### Situation:

Power Engineering's new leadership chose to change the company culture to better compete in today's dynamic markets. The move was from a hierarchical, inflexible, traditional organization to more of a participative management style. One key to this change was development of first line supervisory skills needed to support, sustain and advance this culture. The company called upon the Iowa Center for Industrial Research and Service (CIRAS), a NIST MEP network affiliate, for assistance.

##### Solution:

CIRAS' Training Within Industry (TWI) initiative provided Power Engineering's supervisors and team leaders with the skills needed to support the participative style and increase productivity, improve morale, and reduce training time. TWI provided the company a way to move from a 'do what you're told' environment to how best can get things done. CIRAS worked with the company, leaning on TWI tools to prepare the current employees to contribute to and implement a philosophy of standardization in company training (Job Relations), how to break down goals into tasks (Job Instruction) and then use collaborative and proceduralized methods to standardize the best possible production processes (Job Methods). For example, a need was identified for lift truck training. Employees of different areas identified specific outcomes and training objectives needed to achieve the facility wide need. This approach has led to reduction in indirect labor (eliminated non value-added effort), reduced overtime, and significantly reduced scrap and turnover. Without these improvements and assistance from CIRAS, Power Engineering and Manufacturing would not have been able to meet the level of increased business they have achieved. The instruction has also led to increased sales, reduced costs and expanded capacity. This was accomplished by using TWI tools to reorganize, standardize, and improve technical procedures and training readiness on existing activities. Power Engineering is now able to bring new and cross-trained employees 'up to speed faster' and involve them in cost reduction activity. The training has also led to a more participatory environment and increased morale.

##### Results:

\* Increased/retained sales by \$144,000.

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- \* Reduced scrap, rework and overtime by \$20,000.
- \* Realized \$15,000 in cost savings.

**Testimonial:**

"Training Within Industry (TWI) has given us a standard methodology for developing simple, yet extremely detailed, production and training procedures that follow consistent standards of operations. These classes have helped us on our way to a more productive workplace by guiding us toward a more positive social and learning climate."

Kevin R. Karns, Director of Support Services